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09/309,396	05/07/1999	MICHAEL SMITH	YC1.P07	7457

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EXAMINER

ART UNIT PAPER NUMBER

DATE MAILED: 05/11/2007

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**MAILED**  
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**GROUP 1700**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/309,396  
Filing Date: May 07, 1999  
Appellant(s): SMITH ET AL.

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Chris E. Svendsen  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed December 13, 2005 appealing from the  
Office action mailed May 28, 2004.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,212,895	Laws et al.	7-1980
4,218,491	Laws et al.	8-1980
4,344,978	Sharpe et al.	8-1982
3,298,835	Hildebrand et al.	1-1967

Applicants' admission of the prior art

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laws et al, U.S. Patent 4,212,895, or Laws et al., U.S. Patent 4,218,491, in view of Applicants' admissions, specifically Applicants' discussion of the Sharpe and Hildebrand patents.

The '895 patent teaches use of a hop extract comprised of 60-80% alpha acids, 0.3-0.5 beta acids and up to 1 wt. percent hop oil (see top of column 2). The '491 patent shows the use of hop extract comprised of 40-75 % alpha acids, 20-40 percent beta acids, and up to 10% hop oil (see column 3, lines 12-22). While neither cited reference teaches the exact composition, the '895 patent teaches up to 1% hop oil

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rather than the claimed "in excess of 1%" and '491 teaches over 20% beta acids rather than the "less than 20%," and these differences are seen to be obvious modifications. It would have been obvious to those of ordinary skill in the art to modify the amounts of the various hop constituents to derive a final product that contains the claimed proportions and amounts of said constituents that the brewmaster desires so as to obtain a beer with the desired balance of acids and aromas.

It appears that applicants have merely optimized well known result effective variables, i.e., the amounts of alpha and beta acids and essential oils. Applicants admit, in their Background of the Invention (pages 1-4), that the prior art has commonly modified the various amounts of alpha acids, beta acids and oils that are added to beers. Page 1 state that the compositions of hop extracts can vary widely. Reference is made to the Hildebrand patent, on page 2, whereby individual extracts are produced and then recombined to make a final product. Reference, on page 3, is made to the Sharpe patent, whereby fractions are created and then recombined "according to the particular need of the brewing company." It would have been obvious to those of ordinary skill in the art to modify these notoriously well known result effective variables, i.e., to modify the flavor of the beer. Additionally, it would have been obvious to decrease the amount of beta acids in the '491 reference, because the Sharpe reference teaches that fractions which are rich in alpha acids and contain low levels of beta acid appear to be ideal starting materials for the preparation of isomerized hop extracts (column 4, lines 61-65).

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Finally, Applicants' attention is invited to *In re Levin*, 84 USPQ 232 and the cases cited therein, which are considered in point in the fact situation of the instant case, and wherein the Court stated on page 234 as follows:

This court has taken the position that new recipes or formulas for cooking food which involve the addition or elimination of common ingredients, or for treating them in ways which differ from the former practice, do not amount to invention, merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the particular thing upon which the Applicant asserts his right to a patent. In all such cases, there is nothing patentable unless the Applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients which produces a new, unexpected, and useful function. *In re Benjamin D. White*, 17 C.C.P.A. (Patents) 956, 39 F.2d 974, 5 USPQ 267; *In re Mason et al.*, 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

Further, a rejection is proper when a minor difference between the claimed invention and the prior art is a minor difference in the range or value of a particular variable or when the ranges touch. *In re Geisler*, 16 F.3d 1465, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997).

#### **(10) Response to Argument**

Applicants argues that neither of the Laws references teaches the blending, mixing or supplementing of the extract with any other carbon dioxide product. However, the claim is to a composition and therefore, as no evidence of unexpected results has been provided, and the prior art teaches a composition with the claimed components, the claims remain rejected for obviousness. Additionally, Applicants' admission of the prior art discloses that it was known to mix different fractions of hop extracts to obtain a desirable product (see discussion of the Hildebrand and Sharpe references above).

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Applicants go on to argue that there is no motivation disclosed by the prior art that would lead one of ordinary skill in the art to combine a whole hop extract with a purified extract. However, in view of Applicants' admissions with respect to the Sharpe and Hildebrand patents, it would have been obvious to those of ordinary skill in the art to modify these notoriously well known result effective variables, i.e., to modify the flavor of the beer. Additionally, as stated above, it would have been obvious to decrease the amount of beta acids in the '491 reference, thereby achieving a composition with the claimed components in the claimed amounts, because the Sharpe reference teaches that fractions which are rich in alpha acids and contain low levels of beta acid appear to be ideal starting materials for the preparation of isomerized hop extracts (column 4, lines 61-65).

While Applicants are correct in asserting that the Hildebrand reference employs unacceptable organic solvents, the reference is still applicable to the invention at hand because it relates broadly to the production of a hop oil concentrate from hop oil fractions. Sharpe is referenced as further evidence of this broad teaching that it was known to mix hop extract fractions in order to obtain a hop oil concentrate and therefore is also applicable to the invention at hand.

Applicants argue that the reasoning laid out in *In re Levin* is not applicable to the case hand. However, the prior art demonstrates it was well known to utilize hop extracts with levels of alpha acids, beta acids, and hop oil that were varied in order to achieve the desired taste or flavor in the final product. As such, the product is analogous to a "cooked product," in which component amounts are also varied to

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achieve a desired taste or flavor. As discussed above, the prior art does disclose the mixing of extracted components and no evidence has been provided in support of Applicants' contention that the claimed product is a superior new bittering product unexpected stability.

In regard to Applicants' arguments concerning the reliance on *In re Geisler*, it is asserted that the ranges of "less than 20" and "20-40" and "up to 1" and "in excess of 1" do touch and therefore the case law is applicable. Additionally, it is once again noted that Applicants' have not provided any evidence demonstrating the criticality of and/or any unexpected results achieved by the specific claimed ranges.

**(11) Related Proceeding(s) Appendix**

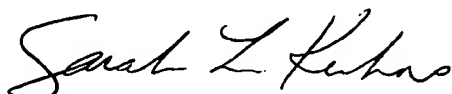
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.



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For the above reasons, it is believed that the rejections should be sustained.

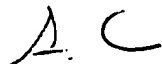
Respectfully submitted,



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